APPENDIX F
LIST OF ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienist
AISI	American Iron and Steel Institute
ANGSTROM	Unit of length equal to one tenth of a millimicron
AOP	Advanced Oxidation Process
AOX	Adsorbable organic halide
API	American Petroleum Institute
ARAR	Applicable or relevant and appropriate requirement
Blackbody Radiation	A body that absorbs completely all radiation incident upon it
BTEX	Benzene, toluene, ethylbenzene, and xylene
BTX	Benzene, toluene, and xylene
BPTCA	Best Practicable Technology Currently Available
CAA	Clean Air Act - The law that authorizes regulations regarding releases of air borne contaminants from stationary and non- stationary sources.
CCL_4	Carbon tetrachloride
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act.

CFR	Code of Federal Regulations
COD	Chemical oxygen demand
DOT	Department of Transportation
e	In math, the base of the natural system of logarithms having a numerical value of 2.71828
EPA	U.S. Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
Flow Through	Refers to the continuous or very frequent passage of fresh-test solution through a test chamber with no recycling
Fouling	The impedance to the flow of light that results when material accumulates on the surface of quartz tube holding UV lamps.
FS	Feasibility study
gpd	gallon per day
gpm	gallon per minute
Groundwater	1: Water below the land surface in the zone of saturation or 2: Water in the saturated zone or stratum beneath the surface of land or water
Halogen	Any group of 5 chemically-related, non-metallic elements that includes bromine, fluorine, chlorine, iodine, and astatine.

Hazardous Waste

Any material which has one or more of the following characteristics:

-exhibits the characteristics of ignitability, corrosivity, reactivity or toxicity;

-is a listed waste; or

-has been mixed with a hazardous waste.

A material is ignitable if it has a flashpoint less than 140°F (closed cup) or is subject to spontaneous heating. A material is corrosive if it exhibits a pH <2.0 or >12.5 or it corrodes steel at a rate greater than 6.35 mm/year. A reactive waste has any of the following properties:

-it is normally unstable and undergoes violent change without detonating;

-it reacts violently with water;

-it forms potentially explosive mixtures with water;

-it generates toxic gases, vapors or fumes when mixed with water;

-it is a cyanide or sulfide bearing waste which can generate toxic gases;

-it is capable of detonation; and

	-it is a forbidden explosive (49 CFR 173.51), Class A explosive (49 CFR 173.53) or a Class B explosive (49 CFR 173.88)
H_2O_2	Hydrogen peroxide
hv	Ultraviolet radiation
Hydrocarbon	Any of vast family of compounds containing carbon and hydrogen in various combinations found in fossil fuels.
Inorganic matter	Chemical substances of mineral origin, not containing carbon-to-carbon bonding. Generally structured through ionic bonding.
Industrial Waste	Any solid, semi-solid, or liquid waste generated by a manufacturing or processing plant.
Independent Laboratory	A test facility operated independently of any product manufacturer capable of performing evaluation tests. Additionally, the laboratory shall have no financial interests in the outcome of these tests other than a fee charged for each test performed.
IR	Infrared
Kinetic rate	The moles of chemical species produced by chemical reaction per volume per unit time.
kW	Kilowatt
kWh	Kilowatt -hour

Leachate	Any liquid, or suspended components that has percolated through or drained from a hazardous waste or non hazardous land field.
mg/L	Milligrams per liter or parts per million
?g/L	Micrograms per liter or parts per billion
n-Type Semiconductor	Crystals doped to obtain free electrons are said to be n-type, with the “n” indicating that unbound negative charges are present.
NEMA	National Electrical Manufacturering Association
NIOSHTLV®	National Institute for Occupational Safety and Health
NPDES	National Pollutant Discharge Elimination System
Neutralization	Mixing acid and basic wastes such that the net effect is a near-neutral pH.
NPT	Normal temperature and pressure which correspond to 0°C (32°F) and 1 atmosphere.
Organic Materials	Chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.
On-Site Disposal	The areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

0H'	Hydroxyl radical, a group of atom with at lest one unpaired electron.
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Administration of the Department of Labor
ORP	Oxidation-Reduction Potential
OSWER	Office of Solid Waste and Emergency Response
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
Photon	The quantum of electromagnetic energy, generally regarded as a discrete particle having zero mass, no electrical charge, and an indefinitely long lifetime
h or Planck*s constant	The constant of proportionality relating the quantum of energy that can be possessed by radiation to the frequency of that radiation. Its value is approximately 6.625×10^{27} erg-second (6.625E - 34 Joules-second)
PLC	Programmable Logic Controller - a solid-state control system that has a user programmable memory for storage of instruction such as: I/O control logic timing, counting, arithmetic and data manipulation. The PLC can be used as direct replacement for electro mechanical control relays.
POTW	Publicly-Owned Treatment Works

Ouantum Energy	Unit of energy E proportional to the frequency of the light radiation
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RCRA	The Resource Conservation and Recovery Act
SVOC	Semivolatile organic compound
SITE	Superfund Innovation Technology Evaluation
TOC	Total organic carbon
TSCA	Toxic Substances Control Act
Turbidity	A cloudy condition in water due to suspended silt or organic matter.
UPS	Uninterruptable power supply
UV	Ultraviolet light, refers to the range of radiation wavelengths from about 4000 angstroms just beyond the violet in the visible spectrum, to about 40 angstroms, on the border of the X-Ray region.
VOC	Volatile Organic Compound, defined as: 1) any compound containing carbon and hydrogen in combination with any other element which has a vapor pressure of 1.5 pounds per square inch absolute (77.6 mm Hg) or greater under actual storage conditions.

	2) Any organic compound which participates in atmospheric photochemical reactions except for those designated by EPA Administrator as having negligible photochemical reactivity.
Wavelength	7 In a periodic wave, the distance between two points of corresponding phase in consecutive cycles.

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